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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,668	03/20/2001	Nigel Ashley Preston	2339-0120P	9401

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EXAMINER

VU, PHUONG T

ART UNIT PAPER NUMBER

2841

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,668

Applicant(s)

PRESTON ET AL.

Examiner

Phuong T. Vu

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowne et al. (US 5,723,870). Regarding claims 1 and 6, Crowne discloses an intrinsically safe portable device 34 for configuring the operation of a level measurement system, said level measurement system comprising a level measurement device 40 having wireless communication receiver 44, said level measurement device having configurable parameters, said portable device comprising an enclosure (the reference teaches that the portable device is a handheld device, therefore, inherently it has a housing enclosure), an electronic circuit (including 58, 62) mounted in said enclosure. Crowne teaches that the device may have an alphanumeric keypad (64, column 7, line 34) coupled to said electronic circuit, and a wireless transmitter 56 responsive to said electronic circuit and operative to transmit control signals to the wireless communication receiver on the level measurement system for controlling the parameters of the level measurement system. Crowne does not mention that said electronic circuit includes a low voltage power supply, however, those skilled in the art at the time the invention was made would recognize that it would have been necessary to provide a power supply which would provide essential power for operating the portable device. Use of power

supplies, such as batteries, is expedient in the art for powering portable devices. Crowne teaches providing microcontroller 60. It would have been obvious to provide a microcontroller that requires low voltage levels generated from a low voltage power supply to increase the allowable operating time of the portable device to improve the operating efficiency of the system. This would also automatically function to eliminate the incidence of sparking. Regarding the recited functional language, it is noted the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform.

Regarding claims 4 and 9, the wireless transmitter comprises an infrared transmitter 56.

3. Claims 2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowne al. (US 5,723,870) in view of Pennisi et al. (US 5,313,365). Regarding claims 2 and 7, Crowne does not teach providing an electronic circuit that is encased in epoxy inside the enclosure to provide a barrier against sparking. However, Pennisi et al. teaches that it is known in the art to use epoxy encapsulants to cover electronic circuits to mitigate physical and electrical degradation to the circuits caused by corrosion, moisture, ionic contamination, and mechanical stresses including vibration and shock. The Pennisi reference is relied upon solely for this teaching. It would have been obvious to those skilled in the art at the time the invention was made to provide modify the device of Crowne to provide an electronic circuit encased with epoxy as taught by Pennisi for the advantages noted above.

4. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowne et al. (US 5,723,870) in view of Pennisi et al. (US 5,313,365) and Nakano et al. (US 5,166,238). Regarding claims 3 and 8, the Crowne reference does not provide any details on the composition of the enclosure. Neither the Crowne nor the Pennisi reference teaches providing an enclosure formed from general polystyrene polymers. However, Nakano teaches that it is known to use polystyrene polymers to form enclosures for electronic equipment. It would have been obvious to those skilled in the art at the time the invention was made to form the enclosure of the above mentioned device of polystyrene polymers as taught by Nakano as this polymer material provides excellent heat resistance, solvent resistance, mechanical strength, chemical resistance, modulus of elasticity, and dimensional stability. Regarding the claimed surface resistivity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polystyrene polymer with a surface resistivity as claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowne et al. (U 5,723,870) in view of Leon et al. (US 6,097,306). Regarding claims 5 and 10, as mentioned above, Crowne only mentions that the portable device has a transmitter which transmits infrared signals and is silent about how the portable device is powered. Leon shows a portable device powered with a low voltage power supply comprising a single cell lithium battery. The Leon reference is relied upon here solely for

this teaching. It would have been obvious to provide a single cell lithium battery as the power supply in the portable device as taught by Leon to conserve space in the portable device. The references are silent about the operating voltage of their electronic circuits. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an operating voltage of 3 volts since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

6. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (703) 308-0303. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

PTVu

February 28, 2003